PATENT APPLICATION New Docket No.: 2847.1001-011 (previously MIT-122AX)

-1-

Date: June 29,001 Express Mail Label No. EL 760037403 4S

Inventor(s):

Gary J. Swanson

Attorney's Docket No.:

2847.1001=011

A SYSTEM AND METHOD FO EFFICIENT ILLUMINATION IN COLOR PROJECTION DISPLAYS

RELATED APPLICATIONS

This application is a continuation application of U.S. Application No.

5 08/443,180 filed on May 17, 1995 which is a continuation-in-part application of U.S. Application No. 08/330,339 filed October 27, 1994 (abandoned) of the entire teachings of which are incorporated herein by reference.

ABSTRACT

An illumination system for a color projection display. In one embodiment a broad spectrum light source illuminates a multilevel optical phase element which disperses the broad spectrum light from the light source by diffraction. A display having a number of pixel elements, each capable of transmitting a predetermined spectral region, is positioned within the near field region of the multilevel optical phase element so as to receive the light dispersed by the multilevel phase element.

4

5

6

7

8